

0.136). The various methods, including direct calculation, Bayes' theorem, Fagan's nomogram and conversion to odds, for the correct derivation of post-test likelihoods are all excellently presented in the recent series of clinical epidemiology rounds.

I believe I understand how the inaccuracy occurred. Dr. Morgan began with a pretest probability of 0.05 and converted this to pretest odds. If one uses the formulas given in the relevant McMaster article (129: 947-954) one obtains pretest odds of 0.0526. One then multiplies the pretest odds by 3 to obtain the post-test odds (0.158). Please note that one has now obtained the post-test odds, not the post-test probability. Once one has obtained the post-test odds one must reconvert from odds back to probability. The formula is: post-test probability = post-test odds/(post-test odds + 1). Thus, one would compute  $0.158/1.158 = 0.136$ . It is unfortunate that one has to go through the process of converting to odds, multiplying by the likelihood ratio and then reconverting back to probability; however, the nomograms and tables supplied by the McMaster group make this a much easier task.

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## Cervical spine injuries in rugby players

I read with interest the paper by Dr. Olli M. Sovio and colleagues (*Can Med Assoc J* 1984; 130: 735-736) on cervical spine injuries in rugby players in British Columbia. The authors call for changes in the laws governing the game as well as for increased awareness of the danger-

ous aspects of rugby in order to reduce the incidence of injuries.

The British Rugby Football Union has made changes in the interpretation of laws for players under 19 years of age, effective Sept. 1, 1983.<sup>1</sup> One change states that "any player at any stage in the scrum, ruck or maul who has, or causes an opponent to have, his shoulders lower than his hip joint must immediately be penalized by awarding a free kick. The object of this interpretation is to try to prevent a collapse of the scrum, ruck or maul." As well, law 19 (lying with, on or near the ball) states: "A player or players from either team must not willfully fall on or over a player who is lying on the ground with the ball in his possession, or on players lying on the ground with the ball between them. A penalty kick will be awarded at the place of infringement."

The Canadian Rugby Football Union, through its Referee and Laws Subcommittee, has carried this impetus even further. Not only have these changes been in effect since Sept. 1, 1983 in British Columbia and since Jan. 1, 1984 in the rest of Canada, but a new high-tackle law was also introduced to prevent players from being tackled above the level of the shoulders, including being pulled down by the jersey collar. This law should have the effect of reducing the number of cervical spine injuries occurring as a result of excessive rotational force being placed on the neck. Furthermore, these new laws apply to all levels of rugby in Canada, including the higher-risk group of senior players.

It remains to be determined whether these changes will result in fewer serious cervical spine injuries among Canadian rugby players. One would hope that with the present awareness of potential dangers, rugby can still be played with the true spirit of the game intact.

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## Air Canada's "honorary flight surgeon"

Dr. Linda G. Curtis (*Can Med Assoc J* 1984; 131: 98) writes of the appreciation expressed by Air Canada when she assisted a patient in distress on a flight.

Unfortunately, I had an experience that was quite dissimilar. On a flight from Montreal to Vancouver I assisted a passenger who had an acute asthma attack. However, I was not thanked profusely by the captain, nor did I receive a bottle of champagne, and, needless to say, I haven't become an honorary flight surgeon.

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## Marital therapy for the elderly

I read with interest the article by Dr. Stanley Goldstein and Judith Preston on marital therapy for the elderly (*Can Med Assoc J* 1984; 130: 1551-1553). Unfortunately, patterns leading to marital disintegration can and do happen at any stage in the marriage. The overriding factor among the elderly, suggested in the article, is that when one reaches a certain age society limits various options and opportunities, disposing of, rather than revering, its elderly.

If society chooses to close the doors on the elderly it will pay the price of losing a valuable resource. One must look closely at a system that discards people when it seemingly has no more use for them. Such was the case against Socrates, who, at the age of 70, was still instructing the youth of Athens to challenge the status quo. He lost his life but upheld his philosophical beliefs against a nihilistic society. Not much is known about his wife, Xanthippe. Oral tradition has it, however, that Socrates drank the hemlock not to uphold his beliefs but because he was worried about the future of his marriage now that he was forced into early retirement.

Goldstein and Preston conclude

that marital therapy is not the preserve of the psychiatrist or social worker; the initial assessment is with the family physician. This is a sensible statement. The family physician is in the unique position of seeing the patient in relation to the community and is thus able to understand important intangible aspects of treatment that are frequently overlooked.

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## Investigation of extrahepatic bile duct obstruction

While I agree that the unusual hepatotoxic reaction to quinidine reported by Dr. David B. Hogan and colleagues (*Can Med Assoc J* 1984; 130: 973) is interesting, I question the investigation that the patient underwent. Ultrasound examination of the abdomen failed on two occasions to reveal evidence of biliary obstruction, and a liver biopsy showed no evidence of extrahepatic bile duct obstruction. Why, then, with this bit of evidence, was the patient subjected to endoscopic retrograde cholangiopancreatography (ERCP) twice and to transhepatic cholangiography?

The indication for ERCP in obstructive jaundice specifically includes demonstration of dilated intrahepatic or extrahepatic ducts by ultrasonography. If the ducts are not dilated ERCP and transhepatic cholangiography are both contraindicated since they are invasive techniques with inherent complications.

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[Dr. Hogan replies:]

In spite of the negative results of ultrasonography we suspected extrahepatic bile duct obstruction in our patient. In 5% to 15% of patients with proven obstruction ultrasonography gives negative re-

sults.<sup>1</sup> In addition, a liver biopsy often fails to distinguish between extrahepatic and intrahepatic cholestasis.<sup>2</sup> Since we felt on the basis of the clinical results that ductal obstruction was still likely, and since the patient was becoming worse, we elected to attempt direct visualization of the bile ducts. Because of the availability of skilled personnel we started with ERCP. Unfortunately, visualization was unsuccessful, so we performed percutaneous cholangiography. The patient became clinically better only after these investigations had been completed. We followed the approach suggested by Scharschmidt and colleagues.<sup>1</sup>

Dr. Hershfield's point is well taken, but we felt that in the context of the clinical situation our approach was appropriate.

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2. LANCE P, BEVAN PG, HOULT JG et al: Liver biopsy in "difficult" jaundice. *Br Med J* 1977; 2: 236

## Excellent response of pathologic jealousy to pimozide

Pathologic jealousy is a delusional symptom that may occur in association with chronic alcoholism, organic brain disorder, schizophrenia or affective disorder,<sup>1</sup> or it may present as the only delusion in paranoia (sometimes, but not always, in association with chronic alcoholism).<sup>2</sup> The symptom is most often described in men but occurs in both sexes. It is probably associated with violence more often in men; murder of the sexual partner has been reported. The wives of some pathologically jealous men become housebound because they are terrified of the abuse and assault they incur if they are out of sight of their spouses for more than a very short time. The delusion in the paranoid form is

persistent, unremitting and totally unresponsive to discussion or argument.

Pathologic jealousy can be a difficult and unpleasant disorder to deal with. If it is symptomatic of another psychiatric illness the treatment is of that illness. Treatment of the paranoid form has always been very unsatisfactory, but two cases of excellent response to pimozide have been reported.<sup>3,4</sup> I report a third such case.

## Case report

A 48-year-old man, employed as a labourer, complained that his wife had been consistently unfaithful to him for the previous 18 months. He had been a heavy drinker when he was younger but now drank moderately. He had no history of other psychiatric disorders. His physical health was good except for a 5-year history of moderate hypertension, for which he was receiving hydrochlorothiazide and a potassium supplement.

The patient first became suspicious when he discovered that his wife was taking contraceptive pills. He believed that she would have intercourse during the minute or two that she would take to go to the washroom during the night. He also believed that men driving past the house at night flashed their lights in a significant way and that men rang coded messages to his wife on the telephone.

When interviewed the patient was totally preoccupied with his delusional concerns, was extremely tense and agitated, and could not be persuaded that his beliefs were false. There was no evidence of major affective disorder, schizophrenia or organic brain disorder. His wife was very distressed, and she and her family denied the patient's accusations. Both husband and wife claimed that he had never been violent towards her, but his accusations were so bitter that she had become almost housebound and had taken an overdose of pills a few weeks before.

A diagnosis of pathologic jealousy was made, and pimozide, 2 mg daily for 3 days and then 4 mg daily, was prescribed. Within several days the patient's distress had abated, and over the next 2 to 3 weeks his